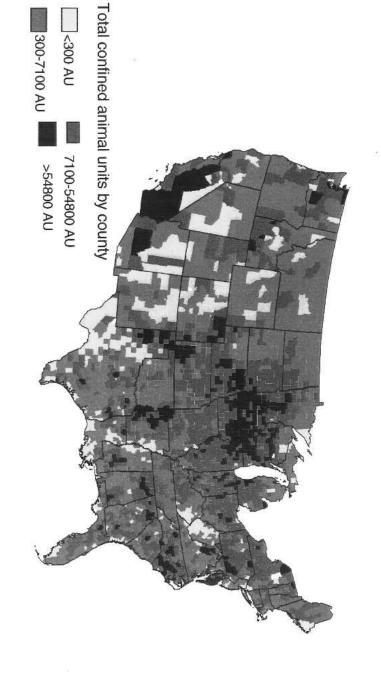
Concentration of livestock and poultry operations, 1992



Note: 1000 Animal units (AU)=1,000 beef cattle; 700 dairy cattle; 2500 hogs; or 455,000 broilers.

Source: ERS/USDA.

CURRENT NATIONAL ACTIONS

Clinton Administration Clean Water Action Plan

- In October, Vice President Gore directed the Environmental Protection Agency and the Department of Agriculture to work with other Federal agencies to develop a Clean Water Action Plan by February 14, 1998. The Plan will describe specific actions that Federal agencies will take to: 1) protect public health; 2) prevent polluted runoff; and 3) promote community-based watershed management.
- The Vice President listed animal feeding operations as a key source of water pollution to be addressed by the Action Plan.

Environmental Protection Agency

EPA is considering actions to address animal waste pollution, including:

- New Clean Water Act regulations;
- Increased inspections of operations; and
- Stepped up enforcement against polluting operations.

Department of Agriculture

• USDA is working with EPA on the Administration's Clean Water Action Plan. The Natural Resources Conservation Service is reviewing and revising guidelines on animal waste management.

National Environmental Dialogue on Pork Production

- The National Environmental Dialogue on Pork Production (NEDPP) is a working group composed of the Department of Agriculture, the Environmental Protection Agency, several state environmental and agriculture departments, and individual pork producers affiliated with the National Pork Producers Council.
- This month, the NEDPP recommended that environmental regulations for swine operations:
 - Apply to all sizes of commercial operations.
 - Require new operations to comply with recognized engineering standards.
 - Limit manure application by crop nutrient needs and soil nutrient levels.
 - Require certification and training for facility operators.
 - Require setbacks from water bodies, residences and other public facilities.
 - Allow public notice and comment on proposed operations.

THE ANIMAL AGRICULTURE REFORM ACT, S. 1323

Senator Tom Harkin (D-IA) introduced the Animal Agriculture Reform Act in the United States Senate on October 28, 1997. The bill calls for national environmental standards for the handling of animal waste by large animal feeding operations. These standards would be implemented through mandatory animal waste management plans approved by the Department of Agriculture.

The bill does not interfere with the regulatory role of the Environmental Protection Agency or state governments. Instead, it provides a directive for USDA to implement waste management standards on individual farms. USDA is not required to monitor for pollution.

Under the Animal Agriculture Reform Act:

- Livestock and poultry operations would submit detailed plans to USDA for:
 - Minimizing animal waste runoff and leaching into water.
 - Operating, monitoring, maintaining and inspecting waste storage facilities.
 - ► Handling, transporting, storing, applying and treating animal waste.
 - Building containment systems according to national technical standards.
 - Containing accidental waste spills.
- Manure may not be applied in amounts that exceed crop nutrient requirements and increase the risk of water pollution.
- Liquid manure that cannot be applied in accordance with nutrient restrictions or put to another beneficial use must be treated in accordance with waste water treatment standards.
- Funding for USDA's Environmental Quality Incentives Program would be quadrupled from \$200 million per year to \$800 million per year, and assistance for smaller operations to prepare animal waste management plans would be a priority.
- Animal owners are responsible for preparing and complying with the animal waste management plan, even if they contract with others to raise the animals.
- If EPA or a state finds that an operation is a significant polluter, USDA must review the operation's compliance with its management plan. USDA may close an operation that does not comply with its plan or fails to file an approved plan.
- State and local governments may apply tougher standards than those in the bill.
- Waste management plans are mandatory for operations over an approximate capacity of 1,330 hogs; 57,000 chickens; 270 dairy cattle; or 640 feeder cattle.

CURRENT REGULATIONS & PROGRAMS

The Environmental Protection Agency

Several Federal statutes under the Environmental Protection Agency's jurisdiction cover some aspect of animal feeding operations. Of these, the Clean Water Act is the most significant. However, regulations under this statute are limited, and do not cover such critical issues as land application of manure, nutrient management, animal waste management plans and engineering standards.

The Clean Water Act of 1972 (CWA)

The CWA is the most significant federal statute covering livestock operations. Under the CWA, no point source may discharge pollutants unless it is in accordance with a permit issued by EPA or a state under EPA's National Pollutant Discharge Elimination System (NPDES).

- The CWA defines a "point source" as: "any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation (CAFO), or vessel or other floating craft, from which pollutants are or may be discharged."
- The CWA does not specifically define a CAFO. EPA's regulations, written in 1976, define a CAFO as an animal feeding facility in which animals are confined for 45 days or more out of a 12-month period, over which no crops or forage growth is sustained, and that either:
 - Contains 1,000 animal units and has the potential to discharge pollutants into water by any means;
 - Contains over 300 animal units and is discharging pollutants through a man-made device (e.g., pipes or ditches) directly into a water body; or
 - Is designated a CAFO after a site inspection determines that the operation is or has the potential to be a significant polluter, no matter its size.
- 1,000 pound "animal units" equal 1,000 slaughter and feeder cattle; 700 dairy cattle; 2,500 hogs; 500 horses; or 10,000 sheep. For poultry, 1,000 animal units are equivalent to about 250,000 layers; 455,000 broilers; or 66,700 turkeys. (EPA's CAFO regulations set different thresholds for poultry, using 55,000 turkeys and from 30,000 to 100,000 chickens depending on the type of operation.)

An NPDES permit prohibits discharges to water except those resulting from a storm exceeding a 25-year, 24 hour storm (*i.e.*, the number of inches of rainfall in a 24-hour period that it is expected only once every 25 years). An animal feeding operation that *only* discharges in the

event of a 25-year, 24-hour storm is not considered a CAFO.

Coastal Zone Act Reauthorization Amendments of 1990

- CZARA calls upon states with federally-approved coastal zone management programs (voluntary programs under the original Coastal Zone Management Act of 1972) to implement coastal nonpoint pollution control programs. EPA's technical guidance for such nonpoint control programs includes management measures for "confined animal facilities."
- Although CZARA management measures apply to farms smaller than those specified under the CWA CAFO regulations, any CAFO with an NPDES permit is exempt from CZARA requirements.

Safe Drinking Water Act

• Under the SDWA, animal feeding operations that are identified as a source of groundwater contamination, are within a designated wellhead protection area, or that are located near public water systems may be subject to additional discharge limitations or management practices.

The United States Department of Agriculture

USDA does not have regulations that govern animal waste management. However, the Natural Resources Conservation Service provides conservation assistance to farmers that includes waste and nutrient management for livestock and poultry farms.

- Under the new **Environmental Quality Incentives Program (EQIP)**, established by the 1996 Farm Bill:
 - ► USDA enters into 5- to 10-year contracts with farmers to provide financial, technical and educational assistance for conservation measures. Farmers must implement a conservation plan.
 - Farmers may receive cost-share payments and incentive payments for conservation measures including manure management facilities and nutrient management plans.
 - Fifty percent of EQIP funding is targeted to livestock production. Owners of large confined livestock operations (over 1,000 animal units--see discussion under the Clean Water Act above) are not eligible for cost-share assistance for animal waste storage or treatment facilities. Technical, educational, and financial assistance may be provided for other conservation practices on these large operations.

The States

A survey of 29 states indicates that laws regulating animal waste and manure management

vary widely. State and local laws that affect the management of animal feeding operations generally regulate one or more of the following aspects: (1) size or structure of operations; (2) location of facilities; and (3) practices of the operation. A number of states have used the NPDES program as a starting point, and have added additional requirements to those found in EPA's NPDES regulations.

Many states and localities have enacted new laws and regulations very recently, and this is an area of intense activity. North Carolina and Kentucky, for example, recently imposed moratoria on the construction of most new livestock operations.

Among aspects of livestock operations regulated by various states are:

- Separation distances between livestock operations and water wells, private homes, or property lines;
- Amounts of land available for manure application;
- Manure application methods and amounts;
- Capacity of manure storage structures;
- Allowable seepage from waste lagoons;
- Construction standards; and
- Disposal of dead animals.

In some states, disputes have arisen as to whether local jurisdictions have the authority to regulate livestock and poultry operations. Among the sources of legal authority advanced to justify local control are zoning and health ordinances. Typically, proponents of local control are seeking more stringent regulation than is provided by state law.

Conclusion

Animal waste pollution is a national problem, and current Federal regulations are an inadequate solution. There are no regulations at the national level that set specific requirements for the storage or application of manure, nutrient management, animal waste management plans or construction standards.

Although many states are grappling with this issue on their own, new minimum environmental standards for animal waste management should be established at the Federal level to ensure nationwide protection of the environment and human health.

While the Environmental Protection Agency should maintain its regulatory role, the Department of Agriculture should be actively engaged in setting new animal waste management standards. USDA is the only Federal department with a national staff in place to help farmers implement sound environmental practices for livestock and poultry production.

As part of any new Federal approach to this issue, all large livestock and poultry operations should be required to adopt animal waste management plans that:

- Limit the application of both phosphorous and nitrogen to the amounts that can be used by crops.
- Detail safe methods for handling, storing and applying or disposing of manure.
- Specify how excess manure that cannot be used for crop nutrients or another beneficial purpose will be treated to minimize environmental threats.

Animal waste is not the only threat to water quality. But action must be taken now to minimize the risks to our nation's ground and surface water from livestock and poultry production. Comprehensive national standards for animal waste management, such as those set forth in the Animal Agriculture Reform Act, are an important step toward improving water quality across America.

REFERENCES

Anderson, Curt. "Little Control on Runoff Pollution." Associated Press, Sept. 20, 1997.

Agricultural Animal Waste Task Force. *Policy Recommendations for Management of Agricultural Animal Waste in North Carolina*. April 1996.

Maryland Blue Ribbon Citizens *Pfiesteria* Action Commission. Final Report. Nov. 1997.

"Chickens and Fish." *The Washington Post*, editorial, Oct. 6, 1997.

Council for Agricultural Science and Technology. *Integrated Animal Waste Management*. Task Force Report No. 128, Ames, Iowa, Nov. 1996.

Diringer, Elliot. "In Central Valley, Defiant Dairies Foul the Water." *San Francisco Chronicle*, July 7, 1997.

Goodman, Peter S. "Md. Officials, Scientists Tell Pfiesteria Panel of Failed Efforts to Curb Farm Runoff." *The Washington Post*, Sept. 25, 1997.

Kenyon, David. "Hogs, Jobs, and the Environment." *Horizons*, Virginia Cooperative Extension, Vol. 6, No. 5, Sept/Oct. 1994.

Letson, David, and Noel Gollehon. "Confined Animal Production and the Manure Problem," *Choices*, Third Quarter, 1996, pp. 18-22.

Lipton, Eric. "Poultry Poses Growing Potomac Hazard." The Washington Post, June 1, 1997.

Ribaudo, Marc. O. "Managing Agricultural Non-Point Source Pollution: Are States Doing the Job?" Economic Research Service, U.S. Department of Agriculture. Paper presented at the Resource Policy Consortium symposium, "Devolution in Environmental Policy," June 5, 1997.

Satchell, Michael. "Hog Heaven--And Hell." U.S. News & World Report, Jan. 22, 1996.

- U.S. Department of Agriculture, Economic Research Service. *Agricultural Resources and Environmental Indicators*, 1996-1997. July 1997.
- U.S. Department of Agriculture, Economic Research Service. *Water Quality: A Report of Progress*. Sept. 1997.
- U.S. Department of Agriculture, Natural Resources Conservation Service. *Animal Manure Management*. NRCS/RCA Issue Brief 7. December 1995.

- U.S. Environmental Protection Agency. *Guide Manual on NPDES Regulations for Concentrated Animal Feeding Operations*. Dec. 1995.
- U.S. Environmental Protection Agency. *Executive Summary of the National Water Quality Inventory: 1994 Report to Congress.* Dec. 1995.
- U.S. Environmental Protection Agency, Office of Inspector General. *Animal Waste Disposal Issues, Report of Audit.* Mar. 31, 1997.
- U.S. Environmental Protection Agency, Office of Inspector General. *Semiannual Report to the Congress*. May 1997.

Warrick, Joby. "Tiny Plants Threaten the Bounty of the Seas." *The Washington Post*, Sept. 23, 1997.

Williams, Bob. "Boss Hog's New Frontier." The News & Observer, Aug. 3, 1997.